

In the Abstract

Please replace the abstract as presented in the underlying International Application No. PCT/EP2004/005777 with the following new abstract:

Abstract

~~The invention relates to a method for automatically recognizing connectable surfaces in a technical system. Said system comprises bodies that can be connected to one another in pairs by using a joining technique. A computer accessible structure of the system, which encompasses at least one surface (F.1, F.6) that is part of a body for each body of the system and a joining technique, e.g. a specific gluing method, are predefined, the joining technique creating a layer between two respective bodies of the system. According to the invention, the surfaces or partial areas (F.1a, F.6a) of surfaces (F.1, F.6) of the system, which can be joined by means of the predefined joining technique, are automatically recognized. In order to do so, the intermediate spaces (ZW) between two surfaces of the structure, which can be filled with a layer created by means of the joining technique, are automatically recognized, pairs of connectable finite elements being determined. A decision criterion that can be evaluated with the aid of a computer and compares the positions and/or alignment of the two finite elements to predefined upper and/or lower thresholds is used for determining said pairs of connectable finite elements.~~

A method for automatically detecting connectable surfaces in a technical system. The system includes bodies that can be connected to one another in pairs by applying a joining technology. A computerized design model of the system that, for each body of the system, includes at least one surface belonging to the body, and a joining technology, for example a specific bonding method, are provided. The joining technology produces a layer between in each case two bodies of the system. The surfaces or sub-areas of surfaces of the system that can be connected by the prescribed joining technology are automatically detected. For this purpose, those interspaces between in each case two surfaces of the design model that can be filled with a layer produced by the joining technology are automatically detected. Pairs of connectable finite elements are determined thereby. A computer evaluable decision criterion that compares the positions and/or orientations of the two finite elements with prescribed upper and/or lower bounds is applied for the determination.